

432 MHz AND ABOVE EME NEWS

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EME NETS

14.345, 10 AM ET SATURDAYS, AFTER VARO NET SUNDAYS:

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CONDITIONS

70 cm activity was good, but conditions were mixed for the 2nd part of the DUBUS/REF Contest. Faraday was better than Feb, but still pretty uncooperative. Signal quality made copy difficult producing many QRZs. Good CW paid off under these conditions – well spaced characters and the right speed, not too slow, but not too fast either. The differences between stations were very noticeable. The turnout on 13 cm and above was up, but mainly consisted of the “regulars”, and was no better than the 1st Microwave Contest, whose results appear at the end of this NL. This seems to argue for a separate microwave where everyone can concentrate on the higher bands. 23 cm was still alive and also produced a number of QSOs. Now that the contest season is over the main attraction of the summer months will be dxpeditions – see KA0RYT’s report if you are interested in activity from ND.

[DF9CY](#)

Chris is returning to the Moon after several years of absence -- I am ready for 23 cm receive with a 1.4 m dish, but do not yet have a PA for 1296. I want to see what such a small dish can hear. The EME system for 144 and 432 MHz are still down. 2 of the 4 yagis on 432 MHz broke in a windstorm. Instead I have a monster-antenna for 28 MHz. I am looking for a way of putting myself back on for 70 cm, but I have no final idea yet.

[DL4MEA](#)

Guenter writes -- Before the contest I worked on improving my antenna. I switched to parallel wire feed line and tried to make the driver for my GS35b PA more stable. It took much work and virtually all my free time, but the result seems worth the effort. The station now consists of a 2 x TP3069 driver, GS35b final, 1.8 dB TX cable loss (next improvement), 6 x 33 el BV-OPT yagis, parallel wire feed, ATF35076 in DJ9BV style preamp and HAMVIEW for display and filtering. A test run on Tuesday before the contest showed everything to be working well. I had good echoes and got an e-mail SWL report indicated that my signals were the best ever. But at the beginning of contest, one could hear me saying "\$*!@! the contest!" When switching on the HV power supply, all fuses were blown. A spike must have come on the line and damaged my tracking computer. After one hour of fruitless effort, I decided to work manually, that means that the azimuth reading is very inaccurate, and my elevation reading is from a laptop connected to the RS232 of a smartlevel. Nevertheless, I was QRV ... but again had something to repair! During beginning of the contest, on Saturday, there must have been large Faraday rotation, so I had no echoes and only rarely worked stations. It became better and better. The same pattern was observed on Sunday. Activity was good on Saturday, but poor on Sunday. I made 27 QSOs on Saturday and only 6 on Sunday. Worked (in

alphabetical order) were **DF3RU, DK3BU, DK3WG, DL9KR, DL9NDD, EA3DXU, F5AQC, G4ERG, HA1YA, IK5QLO initial (#), JA2TY #, JA4BLC, JA5OVU, JH4JLV, K4QI #, K5JL, K5WXN, LX1DB, N2IQU, OE3JPC #, OE5EYM, OE5JFL, ON4KNG, OZ6OL #, PA3CSG, S57RA, SM2CEW, UR5LX, VE1ALQ, W7CNK and W7HAH**. Heard with good signals were SV1BTR (best Sun when Faraday high?), UT0RZ? working DL9NDD, WA9FWD, ON5OF and N0RZ. Sometimes stations gave up too early, before I was able to find the right filtering. I may not have had the pointing right because of my manual tracking, or it may have been my CW - I am not one of those having the best skills in reading CW. Special thanks to all who helped with the antenna project, especially to CT1DMK, G3SEK and DL6WU. I don't want to forget DG4MNI and DC1MJK who helped with the installation.

[For more info and photos.](#)

DL7APV

Bern report a poor SW -- I had some health problems, so I was only QRV a short time. Nil in all 4 skeds with W7BBM, YP2IS, F5KDK and HP3XUG. I worked only **K4QI** on random for an initial. Many others were heard. Condx seemed not so good. I couldn't hear my echoes very often. I have my 2 x 7650 PA back for 3 dB more punch, but its drifting to much. I hope to get it running properly for the next SW.

DL8OBU

Juergen writes -- Yesterday I dismounted my old 4 x 22 el yagis array and put up a new array of 4 x 33 el (10 WL) yagis. This should give me nearly 2 dB more gain than before. I am still using my YL1050 final. On 23 cm I have no antenna for EME anymore. After 4 EME QSOs (TM8EME, OZ4MM, OE9XXI and OE9ERC) I decided to put down the 4 x 67 el yagis as too small for serious EME. I plan to return sometime in the future, maybe with a small 3 m dish. During the last SW, I worked on 70cm on 27 March **DK3BU for initial #95, DF3RU, JA5OVU, SM2CEW, EA6ADW #96 and K4QI**, and on 28 March **JH4JLV #97, SM2CEW, OE5EYM and G4ERG** - all on random except EA6ADW.

DL9KR

Jan was only able to operate in the REF/DUBUS Contest for a limited time, but worked 44 stations and 4 initials. The initials were **RW1AW (KP50), VE6TA (DO33), OE3JPC (JN87) and G4ERP** to bring him to initial #714.

DL9NDD

Ginther found condx fair and activity good on 432 during the SW. He worked only 62 Station plus RW1AW in sked. He had initials with **WW2R (on random - nil on their sked), F5AQC, OE3JPC and VE6TA** (from new QTH).

G3LQR

Simon says -- I finally got my 13 cm EME system going. Power is 60 W in shack from 2 VE4MA amps with hybrids, NE325 preamp to MA feed and my old 4.2 m

dish. Lots still to do, but I can TX on 2320 and listen 2304 or 2424 MHz as well 2320. I May try to move the TX to 2424, if it will tune. This should be easier for JA stations. I have restricted window to JA and need as late a window as possible to clear all the clutter of other antennas. I am not getting enough power from my GS90/GI7B PA. It works, but puts out only 50 W so far. Has somebody come up with details on how to get more power from them. I worked 5 stations on 13 cm: **G3LTF, OE9ERC, OE9XXI, ZS6AXT and HB9SV**, and heard **LX1DB, F1ANH, OH2AHX and OZ4MM**. It is very difficult to work crossband without a sked, but **ZS6AXT and HB9SV** were worked on random that way. On 23 cm, the weekend before the SW, my sked with **K3HZO** was ok, but copy was difficult both ways. I still need more power on 23 cm as well. I cannot work 13 cm without a visible Moon. I am using a small cheap video camera for tracking with manual control from the shack.

G3LTF

Peter writes -- I was active on 2320 and 432 during the March SW, but missed my sked with **WA9OUU** on Sunday evening. I just couldn't keep awake, my apologies. On 2320, I worked on 27 March **G3LQR for initial #15 (and the 1st G/G EME on 13 cm!!), ZS6AXT and OE9ERC**. I also exchanged RST reports with **OZ4MM** but didn't get his final Rs. CWNr were **WA8WZG** (the only W heard here), **HB9SV, F1ANH and LX1DB**. I didn't operate on the 2nd Moon pass on 13 cm. I think there should be a special bonus for working cross band on 13 cm. It really is difficult. No one comes up on the frequency as expected, as most people use 2 separate LO chains, so calls will be 25 or 30 kHz away from the 16 MHz difference you are expecting. On 432 I worked on 27 March **DL9NDD, K4QI, KA0RYT, G4ERG, DK3BU, EA3DXU, K2UYH and VK4AFL for initial #338 - very readable signal for 4 yagis, and on 28 March VE6TA #339. WL7U** and I both heard nil from each other. [There was a mistake in reporting Peter's score in the SSB Contest. It should have read $(6 \times 2) \times 2 = 24$ not 12, which would have brought him higher in the listing. My apology for this error.]

G4ERG

Peter reports nice activity in the DUBUS/REF Contest -- I worked on 70 cm **K5JL, W0KJY, W7CNK, KA0RYT, K4QI, URLX, K1FO, DL9NDD, G3LTF, F1ANH, DK3BU, DL9KR, DL4MEA, F5AQC, DF3RU, ON5OF, KB4CNI for initial #135, KB8RQ #136, DK3WG, OE5EYM, N2IQU, OE3JPC, OE5JFL, ON4KNG, WA9FWD, JA5OVU, 7M2PDT, JH4JLV, YO2IS, HA1YA, DL8OBU and LX1DB**. This gave me a total of 32×19 for 60,800 points. Also heard were **S51ZO, EA3DXU, IK5QLO, W7HAH, UT3LL, VE1ALQ, N9AB, KL7HFQ, SV1BTR and EA6ADW**.

G4RGK

Dave reports on the SW – I was on 432 for a few hours on Saturday evening. I found condx patchy with short periods where signals peaked up. Lots of time was spent locked out of the Eur yagi stations. I only had fleeting glimpses of my own echoes. Nice clear skies, no wind and warm temps made tracking easy for a change. Stations worked were **DL9KR, JA5OVU, F5AQC, SM2CEW, UR5LX, K5JL, N2IQU,**

DL9NDD, K4QI, DK3BU, OE5EYM, DF3RU and OE5JFL. Heard or CWNR were F5FLN, SV1BTR, S57RA, HG1YA, ON4KNG, ON5OF, WA9FWD and 7M2PDT. The station is still 8 x 27 el yagis fed with open wire line, MGF1302 LNA and K2RIW final.

HA5SHF

Csaba (HA5BGL) group's March SW results on 1296 follow: 1626 W2UHI (559/O), 1712 K3HZO (M/O) for initial #49 and WAS 8 and 1748 EA6ADW (559/O), on 27 March at 1953 GW3XYW (O/O) #50 and DXCC 21 and 2219 W2UHI (559/439), and on 28 March at 0005 N6BQ (559/O) #51 and WAS 9 and 0032 W6HD (559/339) #52. They are completing a system for 2300 and ran their 1st RX tests on 13 cm with good results. Csaba sends thanks to OE9ERC for his effort on their behalf. A TH6885 PA is under construction. They hope to be QRV this summer on 13 cm.

IK5QLO

Andrea's March report for the NL -- I was quite pleased to find a high activity level during the '99 EU contest. I feel that 70 cm activity is now in a positive trend with more activity compared to 2-3 years ago. I was especially happy because I reached initial #50 with only 2 yagis during the contest, and for sure still more can be done! I QSO'd on 21 March SV1BTR (O/M) for initial #47, on 26 March nil W5ZN, on 27 March UR5LX, K4QI, OE5EYM, K5JL, K1FO, DK3BU #48 and F1ANH #49, and on 28 March N2IQU, PA3CSG, DL4MEA #50, DF3RU and DL9NDD. HRD/CWNR were WA9FWD, N9AB, W7QX, WA4NJP (on sked (O/-)) and JA5OVU. The rig is 2 x 28 el 9 WL M2 yagis and 8877 PA.

JA4BLC

Yoshiro's EME report for March -- During the Eur/DUBUS Contest weekend in March, I worked W4HHK, OZ4MM, ZS6AXT, OE9ERC, OE9XXI and OH2AXH on 2304/2424. Heard on 2304 were OK1CA and HB9SV. On 432 I worked K5JL, JH1XUJ, KB4CNI for initial #249, JH4JLV, DL9NDD, DF3RU, EA3DXU, G3HUL, DL4MEA, HA1YA, K5WXN and DK3WG. Back in Feb, I made some modifications to OE9PMJ cavities for 2424 MHz. Parts of these cavities were provided some years ago by Peter, OE9PMJ. All of three cavities are working successfully with more than 100 W output for 10 W drive. The tubes used are YD1302 and YD1304. The YD1300s were provided by Doug, G4DZU and work well. These cavities were sent by friends. I plan to see that they come to good use soon on 13 cm EME - thanks to Peter and Doug.

K4QI

Russ' March Activity -- I got back on 432 after being on 1296 since the ARRL contest. I QSO'd on 24 March KB4CNI, K5JL, VE6TA, and W7CNK. I was on for the contest weekend during most of the Eur windows. Conditions seemed very good and polarization was hor for both TX and RX, which made it nice for the hor yagi stations on both ends. I worked on 27 March DL9NDD, F1ANH, IK5QLO, G4ERG, OZ6OL, OE5EYM, DK3BU, S51ZO, G3LTF, EA3DXU, OE3JPC, KL7HFQ, K5JL,

DF3RU, W7HAH, KA0RYT, W7CNK, K6MYC, W1ZX, UR5LX, F5AQC, DK3WG, S57RA, DL8OBU, VE1ALQ, K2UYH, G4RGK, F5KDK, ON4KNG, F5FLN, K5WXZ, OK1DFC, W7CNK dup, N9AB, DL4MEA, DJ3FI and DL1YMK, and on 28 March W9FWD, S52CW, ON5OF, WA4NJP, OE5JFL, DL7APV, WW2R, VE6TA, WB0GGM, W3XS, K0RZ, DL9KR and WE2Y. Heard but missed were K1FO, KB4CNI, N2IQU, G3HUL, KB8RQ and W7BBM.

K6MYC

Mike is QRV again on 432 with a new system consisting of 8 x 14 lambda yagis. He says he is not hearing well, but receiving good reports. He QSO'd 7 stations the 1st night of the SW, and heard several before he lost a preamp in the JA window.

K7XQ

Jeff in CM97QI (Atwater, CA), x-KO6RD, is now QRV on 432 and interested in skeds. He has 2 x 9 wl yagis and 400 W. His antenna has full elevation. He can be reached by e-mail at: K7XQ and has a Webpage at:

K7XQ

KA0RYT

Ron is making plans for possible 70 cm EME operation from ND (DN98 or EN08). The planned weekend is 07/08 Aug. He wonders if there is interest? There is also a possibility of 23 cm activity. [Please let Ron know you are interested. I am, especially in 23 cm, but will also be on for 432. Ron will not go if there is no interest.] During the SW on 70 cm, he found condx ranged from poor to excellent with lots of CWNRS. He worked 8x7 the 1st night. **OE5EYM, K5JL and K4QI** were the loudest.

LU6DW

Marc writes -- We have been doing a lot of work on the new 6 m dish. The reflector is finished as well as the azimuth and elevation motors. We still have to tune the feed (already built), mount it, and position it for maximum efficiency. As soon as this is done, we will be ready for schedules. This job could have been finished by now, but in summer time it's too hot to work out in the sun! We have some pictures in our web site at:

LU6DW

We are also purchasing a 4 tube PA from KB2AH, so we should have a much bigger signal when we return to the Moon. My e-mail is: LU6DW

N6BQ

Hoppy's March 23 cm EME Activity Report follows -- On 26 March Sun noise was 13.25 dB with Solar Flux of 104 and 3.7 m dish. I worked on 27 March **VE1ZJ, W7SZ, WA9FWD, W6HD, W7CS, K9BCT and JA6CZD**, and on 28 March **HA5SHF** for initial #134 and **DXCC 31, KD4LT, WD5AGO, W7CS, W2UHI and KD5FZX #135**. All stations were worked on random except **HA5SHF**. Alex, KN6DD, visited over the weekend and helped operate. The 5 m dish project is progressing

well. The reflector was assembled this weekend and reflector panel alignment is underway. The dish should be mounted in 2 weeks.

N7LQ

Shawn announces the temporary end of his 432 EME operations from DM09dp in NV -- I am disassembling the 432 array in order to setup and test the 1296/2304 terrestrial arrays for the upcoming N7LQ June VHF QSO Party station. Also as Moon conditions will be poor at best for EME activity during the June Contest there will be no activity from DN01fa this year either. I hope to have the array back in operation by sometime in late July to early Aug. I will make an effort to get all the pending cards out soon!

OE5EYM

Ernst has successfully added 23 cm to his 13 m dish. He is using an FHX35 preamp and a 8 x 2C39 PA at 500 W (300 W at the feed). He will change to a better 2nd stage for overriding (long) cable loss and converter noise. On 70 cm he uses a YL1050 with good power and an MGF1302.

OE5JFL

Hannes writes -- I made about 20 QSOs in the DUBUS contest on 70 cm, and the same number as earlier on 23 cm, including some initials. In a big windstorm last Oct I nearly had lost my dish (tower bent, several ribs broken...), but all repairs are completed now with the exception that I cannot make more than 55 deg elevation. Another reason for my lower activity in the past months is that I now have QRL on Saturday. Checking the rest of the system while making the repairs, I found that birds must have nested in the 23 cm feedhorn before I put a cover on. They had left some special sort of resistance just at the RX port to ground. This explains my the reduction in receive performance on 23 cm. (I had thought the reason was the loss of shape of the reflector over the years.) Anyway, cleaning the horn improved Sun noise immediately by 1.5 dB. Now I have 4 dB more Sun noise on 23 cm compared to 70 cm, before the difference was 2.5 dB only. I also have a new e-mail address at: [OE5JFL](mailto:OE5JFL@f7jfl.de) and homepage at:

[OE5JFL WEB Page](http://www.f7jfl.de)

OK1CA

Franta sends his March SW activity report -- On 27 March, I was QRV on 2.3 GHz for about 3 hours. I worked **OZ4MM (O/O)** and **ZS6AXT (O/M)**. My rig consists of a 10 m dish, Cassegrain feed horn with septum polarizer, ATF36077 preamps (W5LUA design) and 2C39BA PA with about 20 W at the feed. I plan to improve my premp and PA. I will be QRV again during the June SW on 2.3 GHz.

OK1DFC

Zdenek reports on his Moon activity -- During the March SW I was active on 432 MHz. This is very funny, because I was using only a 3.8 m dish with F2TU rotatable

feed. I listened on both polarizations. N2IQU was best with V pol at all time. DL9KR with Hor up to 45 deg for maximum signal. The temperature was +10 deg C, nice spring weather. The 1st day activity was low although my echoes were loud and clear. The next moon trek produced higher activity and I made 4 initials. QSOs on 27/28 March were SM2CEW (559/539), K5JL (559/539) for initial #22, N2IQU (579/549), K4QI (559/439), OE5JFL (579/449), DK3BU (559/459) #23, JA5OVU (559/449), DL9KR (559/439), OE5EYM (559/O) #24, DL4MEA (559/549) #25 and DF3RU (O/O) #26. Worked during the earlier part of the DUBUS/REF Contest, on 23 cm, on 27 Feb at 0018 K4QI (559/549), 0025 VE1ZJ (O/O), 0034 HB9SV (599/559), 0039 N2IQU (559/549), 0045 W6HD (559/549) for initial #76, 0052 F6CGJ (559/559), 0059 W2UHI (549/539), 0103 F2TU (549/549), 0112 N6BQ (539/529), 0125 OE9ERC (559/559), 0143 K5JL (559/549), 0159 KD4LT (559/549), 1644 OH2DG (O/O), 1654 OH2AXH (559/559), 1929 ZS6AXT (559/569), 1945 ON5RR (449/529), 2157 OE9XXI (559/559), 2215 DH9FAG (O/O), 2222 SM3AKW (549/549), 2236 OK1KIR (549/549), 2241 HB9BBD (579/569), 2254 VE1ALQ (559/559), 2304 OE5EYM (569/559), 2315 OZ4MM (569/559), 2322 F5PAU (559/559) and 2357 CT1DMK (O/O), and on 28 Feb at 0001 IK3GHY (O/O) #77, 0032 VE6TA (O/O), 0212 W7GBI (559/559) #78, 0230 OZ6OL (O/O), 0303 K2UYH (559/549), 0313 K2DH (559/559), 1752 JH5LUZ (559/559), 1814 F1AHN (559/559), 1916 SM2CEW (559/559), 1924 JF3HUC (O/559) #79, 1945 HB9BHU (O/539), 2238 DF4PV (549/439) and 2302 LX1DB (579/559), and on 7 March at 0300 PY5ZBU (O/529) #80, 28 DXCC and the last continent for WAC! [Zdenek asks why he was not listed in the 1296 SSB Contest scores. I must have lost or not received his contest log. I am sorry for this error. Looking at his report in the March NL, it is not absolutely clear which QSOs were contest contacts. He appears to have made 11 SSB QSOs in 6 sectors for a score of (11x2)x6 or 132 points, which would have positioned him in the top half.]

ON4KNG

Peter's 70 cm EME DUBUS/REF Contest results -- On 27/28 March the WX was fine all weekend compared to what we had most of time last year. It was a pleasure to make the following contacts with: JA5OU, DL9KR, SM2CW, F3RU, OE5YM, DL9NDD, K5JL, K4QI, WA9FWD, K5WXN, KA0RYT, G4ERG, 7M2PDT, DL4MEA, ON5OF, DK3WG, OZ6OL for initial #132, W7CNK #133, UR5LX, N9AB #134 and WW2R #135. I had to repair the open tubing phasing lines. After that, I understood why I received some stations so weak, Faraday rotation was also noticeable. Heard were ON7SS/A (ON5RR?), PA3CSG, HA1YA, SV1BTR, KB8RQ and VE1ALQ. The result was 21x15. I have a new e- mail address at ON4KNG and on the WEB at:

[ON4KNG WEB Page](#)

ON5OF

Dirk was active on 70 cm in the DUBUS/REF Contest and QSO'd on 27 March OE5EYM, SM2CEW, G4ERG, DL9NDD, K5JL, N2IQU and DF3RU, and on 28 March K4QI, WA9FWD, JH4JLV, JA5OVU, ON4KNG and N9AB for a total of

13x11 or 14,300 points. My station information is 600 W PA, TX cable loss 1 dB, 16 steel wire Flexa yagis (23 el, gain per yagi 15.8 dB, estimated stacking gain (coax + 5 power splitters 1->4) 10 dB) total gain +-26 dBd estimated. Please visit my website at:

[ON5OF](#)

[The Antenna](#)

[OZ4MM](#)

Stig reports -- At the last minute, I decided to concentrate on 2304 rather than spend time on 432, in hope of promoting more activity there. It was mainly the regular stations who showed up this weekend. I worked 12 stations during the contest weekend. One highlight was Franta, **OK1CA** who showed up on 2304 with a good signal. Stations worked were **JA4BLC (549/559)**, **HB9SV (529/559)**, **OH2AXH (559/549)**, **OE9ERC (569/569)**, **ZS6AXT (549/569)**, **OE9XXI (559/559)**, **F1ANH (549/559)**, **G3LTF (429/559)?**, **W4HHK (559/O)**, **WA8WZG (449/559)** and **LX1DB (569/569)**. Prior to the weekend, I got the actuator for elevation repaired with great help from Tom, WA8WZG. It worked great during the weekend. On the table, I have a new 13 cm preamp, just needs to be tuned and replace my old one.

[RW1AW](#)

Alex in KP50eb is now QRV on 70 cm. He is using 12 x 15 el BV yagis and a 125 W TX (soon to be 1 kW). He has worked **DL9KR**, **DL9NDD**, **K5JL** and **UR5LX**, and is interested in skeds.

[S57UUU](#)

Marko reports on his 3 cm activity -- On Friday and Saturday it rained all day, and I almost gave up the DUBUS Contest. The WX finally cleared somewhat about 20 h local on Saturday, so I was able to do a little 10 GHz EME. I worked **F6KSX (O/O)** and **WA7CJO (599/579)**. Heard were **DL2LAC (O)** and **IW4BTW?**, **VE4MA**, **OH2AXH? (M)**. On Sunday afternoon, rain started soon after moonrise, therefore no EME for me. I have set up a homepage at . For now it contains only my old papers from the EME conferences, but I plan to put more technical stuff there (mostly things that I have developed for my own EME station).

[SM2CEW](#)

Peter's NL report -- I did not put full time in to the contest, just a few hours both days. Conditions were not good. Faraday was never aligned. My own echoes were always shifted at least 45 deg, but activity was up and operating was fun! I worked the following stations: **UR5LX**, **JH1XUJ**, **ON4KNG**, **EA3DXU**, **DL9KR**, **YO2IS**, **F5FLN**, **S57RA** for initial #356, **F5KDK** #357, **DL9NDD**, **DF3RU**, **OE3JPC**, **G4RGK**, **SM3BYA**, **DL4MEA**, **ON5OF**, **OZ6OL**, **F5AQC**, **OK1DFC**, **K5JL**, **JA5OVU**, **EA3DXU**, **HA1YA**, **OE5EYM**, **DL8OBU**, **G4ALH**, **DJ3FI**, **S52CW** and **EA6ADW**. Heard but not worked was **G4ERP** with good signals, also **SV1BTR** was

loud. I arranged a sked on 23 cm with W7SZ who had a good signal despite the fact that his dish was shaded when we started. I also worked K2DH and W2UHI on 23 cm. I plan to be active on both 70 and 23 the next SW.

SV1BTR

Jimmy is going QRT on 70 cm EME -- I will take the antennas down this weekend. I will be QRT for the next 3 years until I change QTH because of high noise. The present environment totally prevents me from seeing cold sky. With the help and encouragement of many of you, I kept on going and trying to improve the system, but I was never able to beat the noise problem. After 15 months I have to face the facts that this QTH is not at all suitable for any kind of EME activity especially on 432 MHz. I worked #64 initials and 26 DXCC in this 15 month period. In March I worked **K5JL** and new ones **IK5QLO**, **YO2IS** and **EA6ADW**. During the DUBUS test with S7 QRN, I worked only **DL9KR** and **DF3RU** on random and **EA6ADW** in sked. Last year with a 1.5 dB higher NF I had worked 7 stations. All Eur stations were coming in V pol. I would like to apologize to all who were calling me on random or in skeds during the contest and in the past, but I could not get their call out of the noise! I hope you understand the situation. I would appreciate receiving missing QSLs from: K4QI, N2IQU, SM2CEW, 9M2BV, ON5OF, K5GW, WA4NJP and HP3XUG. I would also like to thank all those people that helped me so much with the QRM problems and other stuff (especially PA3CSG and VE7BQH) and to name a few more LZ2US, DL9KR, DL4MEA, KA0RYT, W7CNK, DL4EBY, K1OR, K1RQG, I5TDJ, IK5QLO, F/G8MBI and others. It has been fun and a great learning experience. I am going back on 2 m EME after 3.5 years of absence.

UR5LX

Sergey was active in the DUBUS Contest. He completed 54 QSOs and had initials with **OE3JPC**, **DL9EBF**, **VE6TA**, **WW2R** and **W3XS** to bring his initial total to #366. Sergey will not be QRV for 24/25 April SW.

W1ZX

Willie was on 70 cm and worked on 27 March at 0112 **KB4CNI** (559/559) for initial #297, 0148 **K1FO**, 0208 **K5JL**, 0230 sked **W7EME** nil, 0258 **W7HAH**, 0312 **K4QI**, 0330 **F1FNH**, 2200 sked **UT3LL** nil, 2230 sked **OZ6OL** nil and 2248 **UR5LX**, on 28 March at 0011 **OE5EYM** #298, 0035 **WA9FWD**, 0056 **DL9NND**, 0100 sked **CT1WB** nil, 0130 **W7ALW** sked nil, 0145 **WA4NJP**, 0230 **WL7U** sked nil and 2330 sked **GD4IOM** nil, and on 29 March at 0011 **KA0RYT** and 0045 **W7CNK**. Willie is still working on his 1296 4 tube amplifier with water pump and power supply. He has it working. Now Willie has to find 77' of 1 5/8" hard line to complete the project. Willie will see you on 1296 MHz off the Moon soon.

W4HHK

Paul on 27/28 March worked on 13 cm EME **JA4BLC**, **HB9SV**, **OZ4MM** and **ZS6AXT**. He heard but missed **OE9ERC** with a huge (579) sig. Paul had intermittent RX trouble... water in coax or loose or broken coax connector, yet on 27

March Sun noise on 13 cm was 14 dB for a flux slightly above 100.

W7HAH

Shep found 432 conditions for the DUBUS Contest on 27 March fair to good, but on the 28th poor. On both days very few US stations were heard or worked. He worked on the 27th **K1FO, UR5LX, DL9NDD, DK3BU, F1ANH** for initial #201, **EA3DXU, K4QI, K5JL, W1ZX, VE6TA** #202, **K2UYH, JA5OVU** and **7M2PDT**, and on 28 March **OE5EYM** #203, **DF3RU, OE5JFL** and **DL4MEA** for a total of 17. Shep is always open for skeds.

W7KK

Dave's 70 cm activity report from CM88vc for recent months follows -- I worked on 30 Jan at 0341 **NC1I (559/539)** - Frank had an outstanding signal as usual, **0400 G3LTF (O/O)** for initial #24 and **0500 W7HAH (O/O) #25**. I heard nil in my skeds with **DL7APV** and **DL9NDD** and just (T) copy towards the end of my sked with **WA4NJP**. I QSO'd on 31 Jan at 0422 **K1FO (539/439)**, on 27 Feb at **0400 W1ZX (O/O) #26**, but missed my earlier skeds with **DK3WG** and **SV1BTR** due to a combination of bad WX and getting stuck in traffic - sorry. I heard nil in a later sked with **WA4NJP**. **K6MYC** hosted a get-together at his M2 antenna plant in Feb and I ended up getting 4 new 432-9WL's to replace my 4 weathered and beat up FO-22's which have gone on too many mountain-topping trips. I also have some new LMR-400 phasing line to replace the CQ-106. These improvements along with my **KA0RYT** cavity preamp will hopefully let me finally hear my own echoes and start completing with more stations. My experiment using 2 of the 9WL's vertically didn't work too well in the March SW and I didn't work anyone. I will not be QRV in April, but should be back on in May with all 4 new yagis.

WA8WZG

Tom was active on Saturday night of the DUBUS/REF Contest on 13 cm. He worked one initial **F1AHN** plus **ZS6AXT, OZ4MM, HB9SV** and **OE9ERC**. Heard were **G3LTF** and **JA4BLC**, but no contacts due to equipment problems on his end.

WW2R

Dave reports 70 cm QSOs during the SW with **PA3CSG (O/O)** - by e-mail sked, nil from **DL9NDD** in another e-mail sked, **K5JL**, partial **K4QI (O/549)** and partial **K2UYH (559/QRZ)**. Dave notes that he will not be available for 432 EME QSOs until further notice, (probably for the ARRL EME Contest). He is going to concentrate on a microwave EME and will let everyone know when he is ready for these bands. Dave still needs a QSL from **OH2PO**.

ZS6AXT

Ivo reports -- Conditions on 13 cm during the REF/DUBUS Contest were good. Also WX here was ideal with very little wind and virtually no clouds so that my CCTV camera did great service. The equipment also ran without problems. The mechanical "bias" on my AZ drive proved to be very useful and I am very happy

with this idea from LA8LF. Despite that nice surprise from OK1CA and G3LQR, only one F station and no DLs were worked, which was not very good! I worked on 27 March JA4BLC, OK1CA for initial #28, HB9SV, OE9ERC, OZ4MM, OH2AXH, OE9XXI, F1ANH, HB9SV (dup), G3LQR #29, LX1DB, G3LTF and WA8WZG - CWNR were IK2RTI and W4HHK, and on 28 March IK2RTI, OE9ERC (dup) and W4HHK for a score of 14x12. More QSOs than last year, but less than in the Microwave Contest. Most of the stations came to my CQ. This time I had some QRM from microwave ovens in the 2424 band. Not a problem for copying the station, but a problem when searching for one. My 6 cm tests the previous weekend with OE9ERC and CT1DMK were unsuccessful, but I think I heard one of them, this is only after I heard some recordings from Luis of how the signals are rough. I was not prepared for this. Rechecking the equipment, I will try again soon.

K2UYH

I blew it sked wise. I did not realize Klaus had set up 1296 skeds for me for the presked weekend and thus missed all of these. On top of this I could not make any of my skeds on 28 March because of a family conflict. I tried to notify all the stations involved, but could not find e-mail or telephone information for several of these stations - my apologies if they were looking for me. I operated 432 on 27 March and QSO'd at 0146 OE5EYM (559/559), 0207 G3LTF (559/559), 0217 S51ZO (559/559), 0223 F1ANH (559/559), 0228 DK3BU (569/569), 0233 KA0RYT (559/559), 0240 KB4CNI (559/559), 0258 W7CNK (559/559), 0305 WB0GGM (549/559), 0320 W7HAH (559/569), 0335 VE6TA (459/549) for initial #614, 0345 KB8RQ (559/O), 0357 K6MYC (559/429), 0407 K5JL (569/569), 0425 partial WW2R (449/-) - sent QRZs, but by the time I realized who was calling he had given up, 0528 JA5OVU (559/559), 0551 7M2PDT (O/O), 0657 JH4LJV (O/O), 2216 UR5LX (559/559), 2229 F5AQC (549/549), 2234 DL9NDD (559/569), 2254 K4QI (559/559) and 2259 DF3RU (559/539). Faraday was better than in Feb, but copy was difficult. I also arranged a make-up 23 cm sked with JF3HUC - TNX to JA4BLC, and QSO'd on 28 March at 0700 JF3HUC (559/559) for initial #167 - Yoshitaka's signal was excellent. Paul, S57RA had arranged a 70 cm sked by e-mail for the 29th, but cancelled because of system problems.

WEB NEWS FROM W6/PA0ZN: Rein writes -- As some have noticed, the moon tracking applet on the Newsletter WEB page is not always working. My apologies for this. Recently I have had sometime and have found the reasons for most of this. It is the combination of the Browser and Java versions.

This applet has been compiled with ver. 1.02 and the newer browsers are designed for ver 1.1 (sort of). I am in the process of re-writing the applet with 1.1 and when finished, the gadget should work with Netscape 4.51. This will take some time as the newer JAVA versions are quite different from ver 1.02. I have always used my favorite NC 3.03 for checking things. This browser though is getting out of date for some of the newer applications.

The differences between 1.x and 1.1x are in particular in the "Time/Date" routines,

which happen to form the basic routines in moon tracking. There is lot to this and you are welcome to contact me for more details. Why is this message here? I believe that the WEB, applets and JAVA will play a roll in amateur radio and even in weak signal work in the future, as it is also harming amateur radio. (Personal opinion)

NETNEWS

[G4RGK, DAVID DIBLEY](#)

DL0SHF's QSLs go directly to Per Dudek DK7LJ, Wolbloeken 3, D24145 Kiel, Germany. Per made a number of contacts on SSB in the DUBUS test. See:

[For more details.](#)

CT1WB had PA problems and did not make his March skeds. Ceasar had to replace all capacitors in his power supply.

HB9BBD has established a homepage with 65 tone files of EME signals at:

[HB9BBD with EME recordings](#)

I5TDJ: has a new e-mail address, (all lower-case letters). WA6PY (x-SM0PYP) has a new e-mail address: [I5TDJ](#)

OK1KIR had to cancel all their skeds for the last SW due to illness. Next time all should be OK.

KD4LT, Scotty worked F1ANH and DF4PV on 23 cm.

W4TJ, W4TJ, Bill's 10 GHz transmitter is now producing 37 W. He is looking forward to getting back on EME.

W2UHI is making progress on 10 GHz. On 23 cm he worked DF4PV, F1ANH and VE6TA.

VE6TA, Grant was on 23 cm during the SW and worked 3 new ones to bring him to #33. QSO'd were W2UHI, F1ANH - with pronounced aurora, DF4PV, EA6ADW and K3HZO.

KB4CNI did some work on his phasing lines, changed to 7/8" hardline. His Sun noise is now 16 dB. JA5OVU was worked after the improvements.

VE4MA worked on 10 GHz G3WDG, G4KGC and F6KSX in the contest. He was called by S57UUU and heard nil from OK1KIR due to a freq error. Barry is looking for 10 GHz skeds. He is also working on 24 GHz EME.

N2IQU is now listening on 10 GHz. Mark is seeing S5 Sun noise and some Moon noise.

WE2Y during the SW on 432 QSO'd 5 stations and heard K1FO with a tremendous signal for around 15 minutes.

K3HZO contacted on 1296 during March G3LQR, HA5SHF, KD5FZX - great signal, VE6TA, GW3XYW, W7SZ and partial WA9FWD. All were QSOs initials. Harry is looking for info on mesh covering for a 5 m dish.

KL7HFQ plans to take his array down to repair damaged yagis. He now has his truck back after his moose collision - neither won, but the truck is back on the road and the moose is still dead.

W4AD now has 225 W output from his 2 x 7289 1296 PA. He is waiting for the WX to improve to get his antenna up.

KB8RQ is up and running on 432 again. He says the horizontal part of his cross array is not quite right yet. He worked K1FO, K5JL, OE5EYM, K2UYH, K5JL, K1FO and DK3BU during the contest.

WA9FWD has the 2300 feed working in his dish and is seeing 12 dB of Sun noise on 13 cm. John is not yet ready for TX. On 1296 he lost his dish elevation while working WA4NJP on 23 cm. On 432 John worked 5 initials during the contest. Despite his higher band activity, he will try to stay active on 70 cm.

W7CS is back on 23 cm after traveling for a few weeks. In March he worked N6BQ and heard K9BCT and JA6CZD.

W7SZ worked DJ9YW and EA6ADW for 2 initials on 23 cm in March.

AL7OB is QRV from Anchorage (BP51dc) on 70 cm with 16 x NBS 222 yagis and about 800 W. His tel is 907-345-6999 and e-mail: AL7OB

W7CI was away for a while and had problems upon his return. His azimuth prop pitch jammed up.

W7SZ was QRV on 1296 during the SW and had 7 contacts and 4 initials with his 3 m dish and 175 W in the shack.

WD5AGO will be putting up a dish with a better surface. His 18' dish is for sale.

K2DH worked DL6YDH and KD5FSX during the SW.

WB0GGM is back on 70 cm and is looking forward to also becoming active on 23 cm. During the contest he heard 12 stations and worked 8.

K5WXN worked 10 stations on 432 during the contest including an initial with DL4MEA.

DK3WG reports he is now QSL manager for RW1AW. Jurgen is still looking for QSLs from N2HLT, KB4CNI and WW2R

PA3CSG worked 5 initials (WW2R, OE3JPC, N2HLT, S57RA, F5AQC and F1ANH) on 70 cm during the contest.

S57RA is in grid JN75ap and F5AQC is in JN05pu.

FOR SALE

VK3ZQV, at: [Michael](#) is looking for info on 70 cm cavity amplifier design.

W1ZX has for sale an **MFJ- 784 Super DSP filter** \$US145 +shipping (s), **HP 415E SWR Meter- brown unit** (later build unit) \$US85+s, **Bird 43 wattmeter** \$US185 with a new meter movement, (2) **Bird 43 wattmeter**, fair condition (cracked/broken meter face-needs paint job) \$US130 or best offer + shipping, **Noise Com Noise Diodes NC305, glass package** \$US33+s, flat package \$US42+s. Call Willie at 301 645 5584 between 2000- 2300 EST, FAX 301 645 6853, 24 hrs, e-mail at [W1ZX](#)

WD5AGO has **for sale my 5.5 m dish (Specs: 0.5 f/d, 0.5" steel mesh)**. It can be broken down to the 9 foot ribs. Pick up only. \$US650 with **CP-IMU 23 cm horn**. (After taken down, he will be back up with a 4.5 m dish good to 6 GHz.) Tommy also has an extra new **4CX1600U tube available, a 7213 of unknown condition, a 7031 HyGain (70cm) ant, and 100' plus of 1 5/8" coax w/conn**.

KB2AH has **a full line of cavity amps and 1, 2, 4 and 6 tube ring amps, lin/circular feed horns and LNAs for 432 and 1296. Tom also has mounting blocks for K1FO yagis**. For full details see Tom's 1296 WEB page at

[KB2AH WEB Pages](#),

for more details and pricing info e-mail at [Tom per email](#) or phone 908-223-5067, FAX 908- 223-0901 (24 hrs) or voice 908-223-8124.

ARRL CONTEST DATES: 30/31 Oct and 27/28 Nov have been proposed by the ARRL as the contest dates, but as usual there appears to be some controversy. The following are comments from Lionel, VE7BQH The age old question is on us again: What dates for the ARRL EME contest? As with last year, we have the same problems. The 2 meter stations in the northern part of Europe and to some degree in the NE USA and Canada (and I would assume 70 CM stations) do not like the contest in late November or early December due to high winds and particularly ice.

However, last year at the STRONG request of the Europeans we moved the EME contest away from an earlier weekend in November to get away from a major terrestrial contest in Europe. The weather was particularly bad on the December weekend and many northern Europeans complained "how come the ARRL picked such a silly time?" I took several 2 meter stations to task for their comments on E Mail in December when they were complaining and making comments re the ARRL that were absolutely not true! This year Ian, G3SEK states it is a UHF terrestrial contest being held on Oct 2/3 meaning if we stay away from this weekend, then the only choice is Oct 30/31 and Nov 27/28. Ian's comments: Oct 2/3 clashes with the IARU Region 1 UHF/Microwave contest (1400 UTC Sat to 1400 Sun, 432 and up). For some people there might be a conflict of interest because they can't operate the tropo contest and the EME contest at the same time. Even so, that still might not rule the weekend out for the EME contest, because: 1. There are unlikely to be QRM problems at the bottom end of the bands, because the activity is centred on xxxx.200MHz. 2. On Saturday the moon sets at about the time the tropo contest begins, and rises again at about 0000UTC on Sunday. Therefore the actual overlap of moon time with the tropo contest is only about 14 hours, not the whole 24. We need to get this issue resolved at the earliest possible time. Can you prompt your group for some feedback and resolution. Maybe Ian's MOON-NET message will drive out all the feedback that is required.

BRAZIL 2000: Don, PY5ZBU writes -- We have now started to seriously examine and study the various aspects of our forthcoming Brazil 2000 EME Conference to be held in Rio de Janeiro on 19/20 Aug next year. One of the most important and difficult tasks is to identify within a tolerance band of 15 percent the number of people who will attend being a "one year in advance type of forecast". However, we need these numbers in order to reserve hotel accommodation in a city where tourism is all year round. If you have interest in attending our conference would you kindly let me know as soon as you possibly can. Indicate how many persons will attend. We already have 60 firm registrations, but then this response is understandable because the event will be held in beautiful Rio de Janeiro!! Let me hear from you by fax or e-mail: Fax to 55-41-341-1504 / e-mail is [Brazil 2000](#)

FINAL: I believe the main issues concerning the EME Directory have been settled during the past month. Inputs to the EME Directory should be sent to Klaus, DL4EBY – see the NL masthead. There will probably be more on plans for distribution of the directory in next month's NL.

? The Aug EME Symposium being organized by N2IQU is looking for additional presenters. Contact N2IQU for additional details.

? More technical material is still needed. Please keep sending in your ideas and circuits – they are needed, and reports too! CU off the Moon.

73, Al - K2UYH



OZ6OL, 5m Dish with W2IMU feed for 23cm and NBS feed for 70cm.

OZ6OL, closeup of dual band feed.

JA6CZD, 7m Dish, F/D = 0.6, 16 mm mesh for surface.

JA6CZD, Dual 70/23 cm Feed. Band switching by rotating feed around center of Dish.

Feed layout of JA6CZD dual band feed.

MICROWAVE EME CONTEST

The first ARRL sponsored Microwave EME weekend was a great success. The event took place on November 7 and 8th and concentrated on EME activity at 2300 MHz and higher. Entries indicated that about 30 stations from 15 countries participated in the event. 20 stations were active on 13 cm, 11 on 6 cm and 8 on 3 cm. Two stations were active on 9 cm but no two-way QSOs were recorded. Two days is not enough time to operate 4 microwave amateur bands on EME!

Stations that participated included CT1DMK, F1ANH, F2TU, G3LTF, HB9SV, I6PNN, IK2RTI, JA4BLC, JA8IAD, JA7BMB, NU7Z, OE9ERC, OE9PMJ, OE9XXI, OE9YTV, OH2AXH, OH2DG, OK1KIR, OZ4MM, S57UUU, SM3AKW, SM4DHN, VE4MA, VE7CLD, W4HHK, W5LUA, WA7CJO, WA8WZG, WD5AGO(SWL Report), and ZS6AXT

The first/second/third place single band single operator entries on each band are as follows: on 13 cm, OE9ERC/ZS6AXT/W5LUA, on 6 cm, OE9PMJ/OE9ERC/W5LUA and on 3 cm, WA7CJO/W5LUA/VE4MA. OK1KIR was on top as the only multi-operator entry. First/second/third place multi band entries went to W5LUA/OE9ERC/VE4MA.

Report submitted by W5ZN, WA8WZG, and W5LUA. Awards and certificates sponsored by KD4LT and WA8WZG. Thanks to W5ZN for compiling the results.

Call	2.3 GHz	3.4 GHz	5.7 GHz	10 GHz	Multi-Band
CT1DMK	x	x	1,500	400	3,500
F1ANH	4,900	x	x	x	x
F2TU	5,600	x	x	x	x
G3LTF	1,600	x	x	x	x
HB9SV	4,900	x	x	x	x
I6PNN	x	x	900	x	x
IK2RTI	100	x	900	x	900
JA4BLC	3,000	x	x	x	x
JA8IAD	100	x	x	x	x
JA7BMB	900	x	400	x	1,600
NU7Z	100	x	x	x	x
OE9ERC	18,200	x	7,200	x	48,300
OE9PMJ	x	x	9,000	x	x
OE9XXI	900	x	x	x	x
OE9YTV	x	x	100	x	x
OH2AXH	400	x	x	x	x
OH2DG	100	x	x	x	x
OK1KIR	x	x	1,200	900	4,200

OZ4MM	13,200	x	x	x	x	
S57UUU	x	x	x	100	x	
SM3AKW	1,600	x	x	x	x	
SM4DHN	x	x	400	200	900	
VE4MA	2,500	x	900	400	10,000	
VE7CLD	x	x	x	200	x	
W4HHK	900	x	x	x	x	
W5LUA	18,000	Echoes	3,000	1,600	52,500	
WA7CJO	x	x	x	4,900	x	
WA8WZG	3,600	x	x	x	x	
WD5AGO (swl)		x	x	x	x	x
ZS6AXT	18,000	x	x	x	x	
Stations	20	1	11	8	7	

[Learn about the upcoming EME Symposium.](#)

[Most recent Schedules from Klaus, DL4EBY](#)

[Lunar Calendar for 1999 prepared by G3SEK](#)

[Netnotes by K1RQG](#)

[Leave Contest Info or Comments to Allen Here](#)

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[Rein, W6/PA0ZN](#)

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